



United States
Department of
Agriculture

Forest
Service

Southwestern Region
Forest Health
Arizona Zone Office

2500 S. Pine Knoll Drive
Flagstaff, AZ 86001-6381
FAX (928) 556-2130
Voice (928) 556-2073

File Code: 3420

Date: October 3, 2002

Area Director
USDI-Bureau of Indian Affairs
Phoenix Area Office
P.O. Box 10
Phoenix, AZ 85001

Dear Director:

This letter serves as the pre-treatment biological evaluation for the Corduroy Dwarf Mistletoe (DM) Management Suppression Project proposed by the Fort Apache Agency, White Mountain Apache Reservation. Mary Lou Fairweather, Plant Pathologist with this office, visited the proposed project area with Dave Boreland, Supervisory Forester. The Fort Apache Agency is requesting that project funds designated for the FY 2001 Bear Ridge DM Suppression Project be allocated to the Corduroy project instead, because the Bear Ridge project was completely consumed by the Rodeo-Chediski fire this past summer. **Fiscal year 2003 monies are NOT being requested for this project.**

CORDUROY DWARF MISTLETOE MANAGEMENT PROJECT PROPOSAL

Site Conditions:

Several timber stands with heavy to severe levels of Southwestern dwarf mistletoe infection in ponderosa pine were identified during silvicultural stand examinations for the Corduroy Timber Unit, which was commercially harvested during 2001-2002. One of these stands, located on Faught Ridge, appeared suited to an "initial total control" management strategy for DM control as outlined in the Forest Management Plan of the White Mountain Apache Tribe. The stand is 360 acres in size and is composed primarily of ponderosa pine, which is two-storied/even-aged in structure, with some areas of uneven-aged groups. Most visibly infected overstory trees were removed from the stand during the commercial harvest; however, some infected trees that were targeted for removal still remain. The understory is composed of densely stocked ponderosa pine saplings and scattered groups of pole-size timber mixed with Douglas-fir, alligator juniper, and oak. The average dwarf mistletoe stand rating (DMR) is 1.0, with over 50 percent of the trees infected to some degree. Infection is patchy throughout the stand, with some areas absent of infection.

Mary Lou and Dave observed several groups of trees, 10-20 trees in size, killed by ips bark beetles, many of which were infected with dwarf mistletoe. This condition exists throughout many areas of northern Arizona this year, especially on southern aspects.



Treatment Proposal

The Corduroy DM Management Project Proposal includes pre-commercial thinning, slash treatment (lop and scatter, or hand- or machine piling), and pile burning to reduce overall dwarf mistletoe infection. Thinning objectives include reducing stand density down to an estimated leave stocking of 240 trees per acre by targeting the removal of all sub-merchantable trees visibly infected with dwarf mistletoe and additional thinning of uninfected trees to reduce the risk of fire and bark beetle damage.

Individual tree selection will be used in disease-free portions of the stand, and group selections of up to ½ acre will be used in infected areas. Douglas-fir crop trees will be favored in areas where it and dwarf mistletoe infection in the ponderosa pine occurs. In uninfected areas, ponderosa pine crop trees will be favored. Since not all infected trees targeted for harvest during the timber sale were actually removed, fuels will be placed at the base of some of these trees in order to encourage snag recruitment during slash treatment.

This treatment is expected to develop a healthier forest, capable of producing larger diameter (greater than 20" dbh) trees in the future. Latent infections will be managed in subsequent cutting cycles.

RECOMMENDATIONS

The Corduroy Dwarf Mistletoe (DM) Management Suppression Project proposes to complete the objectives of the Corduroy Timber Unit on 360 acres by removing pre-commercial material infected with dwarf mistletoe and thinning to levels that reduce the risk of bark beetle infestation and fire. After field-checking present stand conditions and reviewing the proposed silvicultural prescription, the management schemes presented here are believed to be silviculturally and biologically sound methods of controlling DM. Due to the moderate level of DM infection in the area, sanitation treatment appears to be an effective means to obtain healthy trees to carry the site through rotation.

Because of the presence of ips bark beetles in the stand, we recommend the following slash treatment guidelines be used in this project:

1. Generate slash between now and the end of December, if possible.
2. Remove from the site or treat all slash greater than four inches in diameter. Slash less than four inches poses less risk.
3. If creating slash piles, place them in stand openings as much as possible and place the largest diameter slash on the outside of the pile to promote quick drying. Teepee style slash piles with branches and small diameter slash in the middle and the larger diameter material on the outside.
4. If the largest diameter slash is on the outside of the piles, this material can be scorched with a terra torch either later this fall or early next spring (i.e., before April). The material does not need to be completely burned, just scorched enough to cook the cambium. Of course, if the whole pile can be burned, so much the better.

5. The larger diameter slash can also be chipped, buried, or peeled. If chipping, try to maximize the distance from the chip piles to the nearest tree. There are no specific guidelines as yet, but the farther the better.
6. If large-diameter slash will be given away as free use firewood, inform the public not to pile the green slash next to trees in their yard. Preferably, the firewood should be bucked into short lengths (i.e., less than 14 inches), peeled, split, and placed in direct sunlight.

If you have any questions regarding this evaluation, please let us know. We can be reached at (928) 556-2075 (mfairweather@fs.fed.us, Mary Lou) or (928) 556-2073 (janhold@fs.fed.us, John Anhold).

Sincerely,

/s/ John Anhold
JOHN ANHOLD
Arizona Zone Leader
Forest Health

cc: MaryLou Fairweather, Douglas L Parker, Debra Allen-Reid